

CHEMICAL IMAGING WORKSHOP

Coupling Atom Probe Tomography with High-resolution Transmission Electron Microscopy



On June 19, 2012, join us at the Environmental Molecular Sciences Laboratory for a free full-day workshop dedicated to coupling atom probe tomography (APT) and high-resolution transmission electron microscopy (TEM). The workshop will include an associated tour and tutorial session* with laboratory demonstrations, focusing on multi-modal chemical imaging using a combination of focused ion beam (FIB), scanning transmission electron microscopy (STEM), and APT.

Along with invited talks, the conference will feature a dedicated forum to discuss the possibility of combining APT with TEM into a single tool. Other aspects of developing new capabilities, such as cryogenic sample transfer, will be included in the discussion.

The workshop is being hosted in conjunction with Surface Analysis '12, June 20-22, 2012, the annual topical conference sponsored by the Applied Surface Science Division of AVS and the Annual Symposium of the Pacific Northwest Chapter of AVS.

Workshop Schedule

7:30 am - 8:15 am	Badging/Breakfast
8:15 am - 8:30 am	Welcome Remarks from EMSL Director Allison Campell and PNNL Chemical Imaging Initiative Lead Louis Terminello
8:30 am - 9:00 am	Overview of APT by Mike Miller (Corporate Fellow, ORNL)
9:00 am - 9:30 am	Overview of TEM by Amanda Petford-Long (Director, ANL-CNM)
9:30 am - 10:00 am	Potential New Directions for Combining APT and TEM by Tom Kelly (Division Vice-President, CAMECA Instruments, Inc.)
10:15 am - 10:45 am	Coupling APT and STEM by Brian Gorman (Professor, Colorado School of Mines)
10:45 am - 11:15 am	Coupling APT and STEM by Arun Devaraj and Robert Colby (Scientists, EMSL)
11:15 am - 11:45 am	APT in Biological Applications by Ty Prosa (Senior Staff Scientist, CAMECA Instruments, Inc.)
12:00 pm - 2:00 pm	Forum Discussion (Lunch included)
2:00 pm - 5:00 pm	*Laboratory Tour (EMSL's APT, FIB, and STEM capabilities): Tour includes visits to the APT, STEM, FIB, and APT data analysis laboratories (approximately 45 minutes each). Opportunities to discuss the feasibility of APT/TEM analysis to specific materials of interest will be encouraged. Tour participants must have a valid security badge. For more information and required forms, please contact Barbara Diehl at emslconferences@pnnl.gov .

SURFACE ANALYSIS '12

Pacific Northwest Chapter of AVS
Joint Symposium

Invited Speakers

Mike Miller
Oak Ridge National Laboratory

Amanda Petford-Long
Argonne National Laboratory

Brian Gorman
Colorado School of Mines

Tom Kelly
Ty Prosa
Cameca Instruments, Inc.

Registration is FREE

The workshop is limited to the first 100 registrants. The tour and lab demonstrations are limited to 32 participants. To encourage student participation at Surface Analysis '12, PNWAVS will subsidize student accommodations. For details, contact Barbara Diehl at emslconferences@pnnl.gov.

Event Sponsors



For information about registration and accommodations/logistics, please visit:
www.emsl.pnnl.gov/news/conferences/surface_analysis2012/

